

**IN THE CLAIMS:**

1. (Original) A suspension assembly for use in supporting a first actuation element of a microelectromechanical system and allowing movement of said first actuation element relative to a base substrate, wherein said suspension assembly comprises:

5 a longitudinal center beam comprising elongate first and second lateral sides; and  
a plurality of first lateral beams extending out from said center beam, wherein, when said center beam of said suspension assembly is actuated, at least one of said plurality of said first lateral beams are stretched.

10 2. (Original) A suspension assembly, as claimed in Claim 1, wherein said plurality of said first lateral beams is anchored to said base substrate.

3. (Original) A suspension assembly, as claimed in Claim 1, further comprising an actuation assembly, wherein said actuation assembly comprises a plurality of actuation beams  
15 oriented substantially parallel to said center beam and interconnected with ones of said plurality of said first lateral beams.

4. (Original) A suspension assembly, as claimed in Claim 3, wherein said actuation assembly is disposed between said base substrate and said plurality of said first lateral beams.

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5. (Original) A suspension assembly, as claimed in Claim 3, wherein said first actuation element is interconnected to at least one of said plurality of said actuation beams.

6. (Original) A suspension assembly, as claimed in Claim 3, wherein said actuation assembly comprises a plurality of second lateral beams oriented substantially perpendicular to said center beam and extending between and interconnecting said plurality of said actuation beams.

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7. (Original) A suspension assembly, as claimed in Claim 6, wherein said first actuation element is interconnected to at least one of said plurality of said second lateral beams.

8. (Original) A suspension assembly, as claimed in Claim 3, further comprising a support assembly, wherein said support assembly comprises a first central beam and a second central beam adjacent to said first central beam and a plurality of third and fourth lateral beams extending out from said first and second central beams.

9. (Original) A suspension assembly, as claimed in Claim 8, wherein said plurality of said third lateral beams are interconnected with said plurality of said first lateral beams, and wherein said plurality of said third lateral beams are also stretched when said center beam is actuated.

10. (Original) A suspension assembly, as claimed in Claim 8, wherein said plurality of said fourth lateral beams are interconnected with said plurality of said first lateral beams, and wherein said plurality of said fourth lateral beams are also flexed when said center beam is actuated.

11. (Original) A suspension assembly, as claimed in Claim 10, wherein said plurality of said actuation beams of said actuation assembly are disposed between and interconnected with said plurality of said first lateral beams and said plurality of said fourth lateral beams.

5 12. (Original) A suspension assembly for use in supporting a first actuation element of a microelectromechanical system and allowing movement of said first actuation element relative to a base substrate, wherein said suspension assembly comprises:

a longitudinal center beam comprising elongate first and second lateral sides; and

a plurality of first and second lateral beams extending out from said center beam,

10 wherein, when said center beam of said suspension assembly is actuated, said plurality of said first lateral beams are stretched, and said plurality of said second lateral beams are flexed.

13. (Original) A suspension assembly, as claimed in Claim 12, wherein said plurality of said first lateral beams are anchored to said base substrate.

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14. (Original) A suspension assembly, as claimed in Claim 12, wherein said plurality of said second lateral beams are free of restrictive connections to said base substrate.

15. (Original) A suspension assembly, as claimed in Claim 12, further comprising an  
20 actuation assembly, wherein said actuation assembly comprises a plurality of actuation beams oriented substantially parallel to said center beam and interconnected with ones of said plurality of said second lateral beams.

16. (Original) A suspension assembly, as claimed in Claim 15, wherein said actuation assembly is disposed between said base substrate and said plurality of said first and second lateral beams.

5 17. (Original) A suspension assembly, as claimed in Claim 15, wherein said first actuation element is interconnected to at least one of said plurality of said actuation beams.

18. (Original) A suspension assembly, as claimed in Claim 15, wherein said actuation assembly comprises a plurality of third lateral beams extending between and interconnected with  
10 said plurality of said actuation beams.

19. (Original) A suspension assembly, as claimed in Claim 18, wherein said first actuation element is interconnected to at least one of said plurality of said third lateral beams.

15 20. (Original) A suspension assembly, as claimed in Claim 15, further comprising a support assembly, wherein said support assembly comprises a first central beam and a second central beam adjacent to said first central beam and a plurality of fourth and fifth lateral beams extending out from said first and second central beams.

20 21. (Original) A suspension assembly, as claimed in Claim 20, wherein said plurality of said fourth lateral beams are interconnected with said plurality of said first lateral beams, and wherein said plurality of said fourth lateral beams are also stretched when said center beam is actuated.

22. (Original) A suspension assembly, as claimed in Claim 20, wherein said plurality of said fifth lateral beams are interconnected with said plurality of said second lateral beams, and wherein said plurality of said fifth lateral beams are also flexed when said center beam is actuated.

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23. (Original) A suspension assembly, as claimed in Claim 22, wherein said plurality of said actuation beams of said actuation assembly are disposed between and interconnected with said plurality of said second lateral beams and said plurality of said fifth lateral beams.

10 24. (Original) A suspension assembly, as claimed in Claim 20, wherein said plurality of said fifth lateral beams are free of restrictive connections to said base substrate.

25. (Original) A suspension assembly for use in supporting a first actuation element of a microelectromechanical system and allowing movement of said first actuation element of a  
15 microelectromechanical system relative to a base substrate, wherein said suspension assembly comprises:

a longitudinal center beam comprising elongate first and second lateral sides; and  
first, second, third, and fourth lateral beams extending out from said center beam,  
wherein said first and second lateral beams extend from said first lateral side of said center beam,  
20 and wherein said third and fourth lateral beams extend out from said second lateral side of said center beam, wherein said first, second, third, and fourth lateral beams comprise respective first, second, third, and fourth attachment ends attached to said center beam and respective first,

second, third, and fourth peripheral ends disposed most remote from corresponding said first, second, third, and fourth attachment ends,

wherein said first, second, third, and fourth peripheral ends of respective said first, second, third, and fourth lateral arms are anchored to the base substrate,

5 wherein, when said center beam of said suspension assembly is in a resting position, each of said first, second, third, and fourth lateral beams comprises a nominal length,

wherein, when said center beam of said suspension assembly is in a displaced position, each of said first, second, third, and fourth lateral beams comprises a stretched length, and

wherein said stretched length is longer than said resting length of each of said first,  
10 second, third, and fourth lateral beams.

26. (Original) A suspension assembly, as claimed in Claim 25, wherein said longitudinal center beam comprises first and second beams that are joined together.

15 27. (Original) A suspension assembly, as claimed in Claim 26, wherein said first and second beams are joined together through a homogenous interface.

28. (Original) A suspension assembly, as claimed in Claim 25, wherein said first, second, third, and fourth lateral beams are substantially perpendicular to said center beam when said  
20 center beam is in a resting position.

29. (Original) A suspension assembly, as claimed in Claim 25, further comprising first and second flexure beams, wherein said first flexure beam extends out from said first lateral side of said center beam, wherein said second flexure beam extends out from said second lateral side of said center beam, wherein said first and second flexure beams comprise respective first and second proximal ends connected to said center beam and respective first and second distal ends disposed most remote from corresponding said first and second proximal ends.

30. (Original) A suspension assembly, as claimed in Claim 29, wherein said first and second distal ends of respective said first and second flexure beams are free from attachment to said base substrate.

31. (Original) A suspension assembly, as claimed in Claim 29, wherein said first and second flexure beams are capable of flexure or pivoting about respective first and second proximal ends of respective said first and second flexure beams.

32. (Original) A suspension assembly, as claimed in Claim 29, wherein said first flexure beam is disposed between said first and second lateral beams, and wherein said second flexure beam is disposed between said third and fourth lateral beams.

33. (Original) A suspension assembly, as claimed in Claim 29, wherein, when said center beam of said suspension assembly is in a displaced position, said center beam is displaced by a first distance with respect to said base substrate, and said first and second distal ends of respective said first and second flexure beams are each displaced by a second distance greater  
5 than said first distance with respect to said base substrate.

34. (Original) A suspension assembly, as claimed in Claim 29, further comprising third and fourth flexure beams, wherein said third flexure beam extends out from said first lateral side of said center beam, wherein said fourth flexure beam extends out from said second lateral side of  
10 said center beam, wherein said third and fourth flexure beams comprise respective third and fourth proximal ends connected to said center beam and respective third and fourth distal ends disposed most remote from corresponding said third and fourth proximal ends.

35. (Original) A suspension assembly, as claimed in Claim 34, further comprising a first  
15 actuation beam interconnected with said first and third distal ends of respective said first and third flexure beams, and a second actuation beam interconnected with said second and fourth distal ends of respective said second and fourth flexure beams.

36. (Original) A suspension assembly, as claimed in Claim 35, wherein said first and second  
20 actuation beams are disposed between respective said flexure beams and said base substrate.



37. (Original) A suspension assembly, as claimed in Claim 35, wherein respective said flexure beams are disposed between said first and second actuation beams and said base substrate.

5 38. (Original) A suspension assembly, as claimed in Claim 35, wherein said first and second actuation beams are substantially parallel to said center beam.

39. (Original) A suspension assembly, as claimed in Claim 35, wherein said first actuation beam is substantially perpendicular to said first and third flexure beams, and wherein said second  
10 actuation beam is substantially perpendicular to said second and fourth actuation beams.

40. (Original) A suspension assembly, as claimed in Claim 35, wherein said first actuation element is interconnected with at least one of said first and second actuation beams.

15 41. - 61. Canceled

Respectfully submitted,

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